T E C H N I C A L M E M O R A N D U M

Utah Coal Regulatory Program

January 5, 2004

TO: Internal File

THRU: Dave Darby, Environmental Scientist-Hydrology, Team Lead

FROM: Jerriann Ernstsen, Ph.D., Environmental Scientist-Biology.

RE: 2003 Midterm Review, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID #1782

SUMMARY:

The Division is required to review each active permit during its term, in accordance with R645-303-211. A Midterm Review takes place at the midpoint of the permit term (July 7, 2003 for the Emery Deep Mine) and covers pertinent elements. The Division is currently conducting the Midterm Review for the Emery Deep Mine. The pertinent element chosen for review that focuses on biology is the following:

A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).

TECHNICAL ANALYSIS:

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Adverse effects of mining on water quantity to the Colorado River drainages do affect four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, bonytail chub, and razorback sucker). The USFWS considers water depletion to the Colorado River drainage as a potential jeopardy to these endangered fish. Water users may be required to mitigate if the overall water consumption is greater than 100 acre-feet per year.

The Permittee is required to address possible adverse affects to these four fish species by first calculating the amount of water used by all mining operations and explorations. The "Windy Gap Process" provides a guideline of parameters necessary to calculate overall water consumption for coal mines. This "process" provides descriptions of equation parameters and guidelines for coal operators to follow. The Permittee submitted the following values for the Windy Gap parameters in December of 2003:

Parameter	Acre-ft/yr	Permittee Comments
Mining consumption	0	
Ventilation consumption	0	
Coal producing consumption	0	
Ventilation evaporation	Approx. 25	There is no data currently available to calculate the loss due to ventilation. With the fan returning approximately 218,000 CFM, this could evaporate approximately 25 ac-ft per year. This amount will vary based on the volume of air returned from the mine, the barometric conditions of the mine air and the barometric conditions of the outside air, as well as temperature of both.

Sediment pond evaporation		Water entering the sediment ponds is stored long enough to allow the accumulated sediment to drop out. The water is allowed to discharge into the receiving stream. This would not be considered a consumptive mechanism.
Springs and seep effects from subsidence		There have been no reports of seeps from subsidence.
Alluvial aquifer abstractions into mines	0	There are no water infiltrations from alluvial systems into the mine.
Alluvial well pumpage	0	There is zero pumpage from alluvial wells.
Deep aquifer pumpage	0	There is zero pumpage from deep aquifer wells.
Postmining inflow to workings	0	There is zero post mining inflow to the old workings.
Coal moisture loss	3.6	The inherent moisture in the Emery coal is approximately 4 %. The as received moisture of the coal is approximately 6 %. The Emery Mine produced 243,153 tons of coal in 2003. Using these values, the consumption was approximately 3 .6 ac-ft in 2002.
Direct diversions.	0	There are no direct diversions at the Emery mine therefore zero consumption.

The total loss to the Colorado River Basin approximates 28.6, not 26.6 as written in the Permittee's response letter. The Permittee also submitted the total gain the to Basin as 420 acre-feet of water per year, which could have a negative impact to the basin. The USFWS agrees with the Division that the loss and gain of water to the Basin are minimal and should not have a negative impact to the four endangered fish of the Colorado River (USFWS 12/23/2003; personal communications).

The Division reminds the Permittee that any significant modification to the mine plan will require new calculations showing water loss and gain.

Findings:

The Permittee did not calculate the value of water from "mining consumption" accurately or provide equations as requested. The Division, however, considers the information adequate to meet the minimum Fish and Wildlife Information section of the Operation Plan regulations. This decision is because the total consumption value is low and the corrected value from "mining consumption" will not significantly change the total.

RECOMMENDATIONS:

Recommend approval of the Midterm Review process.

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